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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/184,572	11/02/98	MCKERRACHER L	99999/MARUSY

EXAMINER	
TURNER, S	
ART UNIT	PAPER NUMBER
1647	17

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.	Applicant(s)
09/184,572	McKerracher et al
Examiner	**Art Unit**
Sharon L. Turner, Ph.D.	1647

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 2-22-01

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 25-29, 32, and 33 is/are pending in the applica

4a) Of the above, claim(s) 25-29 is/are withdrawn from considera

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) 32 and 33 is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirem

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☐ All b) ☐ Some* c) ☒ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 13, 16

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

Response to Amendment

1. The amendments and IDSs filed 12-12-00 and 2-22-01 have been entered into the record and have been fully considered.

2. Claims 22-24, 30 and 31 are canceled. Claims 25-29 and 32-33 are pending.

3. Claims 25-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 10.

4. As a result of applicants amendment, all rejections not reiterated herein have been withdrawn by the examiner.

Priority

5. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Canada on 10-31-97. It is noted, however, that applicant has not filed a certified copy of the 2.214.841 application as required by 35 U.S.C. 119(b). Prior Art is applied accordingly.

Claim Objections

6. Claim 33 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 33 is improperly dependent on claim 33. The typographical error should be corrected such that claim 33 is dependent on claim 32. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The examiner recognizes various ADP-ribosyl transferases in particular mouse, human, chicken, *C. difficile*, however the

examiner does not recognize ADP-ribosyl transferase C3 from other than *C. botulinum*. Thus, it appears that claim 33 does not further limit claim 32 and in contrast broadens the scope to ADP-ribosyl transferases from species other than *C. botulinum*.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 33 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification discloses ADP-ribosyl transferase C3 enzyme from *C. botulinum*. However, the claims recite a recombinant ADP-ribosyl transferase which recitation encompasses and corresponds to various polypeptide structures from other species which are not described in the specification as originally filed. Thus, none of these compounds meet the written description provision of 35 USC 112, first paragraph. In addition, as the examiner cannot find support for the use of such alternative recombinant species in the claimed method, the recitation appears to constitute new matter. Applicant should point the specification where written description support for the genus recitation of a recombinant ADP-ribosyl transferase may be found.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 32-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims recite "an amount effective to counteract said inhibition" however the skilled artisan is not readily apprised of the metes and bounds of the said inhibition or of when it has been effectively overcome. Thus, the recitation appears to be indefinite as the claim fails to indicate a state or function which is to be achieved such as to be considered effective. Clarification is required.

The claims further recite "directly to a central nervous system (CNS) lesion site or a peripheral nervous system (PNS) lesion site." Yet the recitation is unclear as to what it is intended to modify, i.e., the delivering step, the inhibition or the determination of the effective amount. Thus, the metes and bounds of the method are unclear and the artisan is not readily apprised of when the invention has been practiced.

Claim Rejections - 35 USC § 102 or 103

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

12. Claims 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Dillon et al., Methods in Enzymol., 256:174-95, 1995.

Dillon et al., teach C3 transferase assay in brain homogenates which comprise the administration of C3 transferase to neuronal cells of the CNS of a subject, the CNS being associated with glia and myelin, see in particular in brain (CNS), p. 182-3, Figures 3-4, pp. 188-89 and p. 190, Figure 2. The administration of 40-50 ug/ml recombinantly purified C3 inherently counteracts inhibition in the CNS and PNS, absent evidence to the contrary. Thus, the reference teachings anticipate the claimed invention.

13. Claims 32-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Jin et al., J of Neurosci., 8-15-97, 17(16):6256-63.

Jin et al., teach inhibition of rho with Clostridium botulinum C3 transferase which stimulates outgrowth of DRG neurites (the PNS). C3 transferase treated neurons display increased neurite outgrowth and are minimally sensitive to the inhibition of neuronal axon outgrowth of collapsin-1, see in particular paragraph spanning columns 1-2 on p. 6258 and Figure 2. The administration of .1mg/ml C3 transferase inherently counteracts inhibition in the CNS and PNS, absent evidence to the contrary. Thus, the reference teachings anticipate the claimed invention.

14. Claims 32-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Liao et al., US Patent No. 6,180,597 issued 1-30-01, filed 8-11-98.

Liao et al., teach a method of treating an individual for example for hypoxia or brain injury comprising administration of a compound which a rho GTPase function inhibitor in an amount effective to increase endothelial cell NOS activity in brain tissue. The specification discloses such inhibitors as compounds including C. botulinum ADP-ribosyl C3 transferase administered at for example 50 ug/ml, see in particular column 13, line 64-column 14, line 16, examples 1-26 and claims 1-93. The administration may be in vivo or in vitro as claimed. As applicants claims merely comprise administration of the same compound, the reference teachings anticipate the claimed invention absent evidence to the contrary because the property of counteracting said inhibition is inherently provided.

15. Claims 32-33 are rejected under 35 U.S.C. 102(e) as being anticipated by Johnson et al., US Patent No. 5,851,786 issued 12-22-98, filed 9-27-95.

Johnson et al., teach a method of treating an individual to regulate actin polymerization, stress fiber formation and/or focal adhesion assembly by administration of a compound such as Botulinum C3 exoenzyme also known as ADP-ribosyl C3 transferase at 100ng/ul, see in particular column 14, line 56-line 15, line 59, column 18, lines 30-63 and Example 3, including administration directly to a cell in vivo, ex vivo or systemically, see in particular column 18, line 44. As applicants claims merely comprise administration of the same compound, the reference

teachings anticipate the claimed invention absent evidence to the contrary because the property of counteracting said inhibition is inherently provided.

Status of Claims

16. No claims are allowed.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry of a general nature or relating to the status of this general application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Papers relating to this application may be submitted to Technology Center 1600, Group 1640 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). Should applicant wish to FAX a response, the current FAX number for Group 1600 is (703) 308-4242.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon L. Turner, Ph.D. whose telephone number is (703) 308-0056. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Kunz, can be reached at (703) 308-4623.

Sharon L. Turner, Ph.D.
April 19, 2001

CHRISTINE J. SAOUD
PRIMARY EXAMINER

Christine J. Saoud